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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/977,462	10/15/2001	Andrey N. Putilin	2513-003CIP	3701

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EXAMINER

CRUZ, MAGDA

ART UNIT

PAPER NUMBER

2851

DATE MAILED: 02/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/977,462

Applicant(s)

PUTILIN, ANDREY N.

Examiner

Magda Cruz

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 October 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2. 6) ☐ Other: _____

DETAILED ACTION

Claim Objections

1. Claims 1-18 are objected to because of the following informalities:
 - a. The applicant is respectfully requested to renumber the claims with only Arabic numerals.
 - b. In the text of the claims, if the applicant is making reference to another claim (i.e. the independent claim), it should be written, for example, - - claim 1 - - instead of "[c1]", to avoid any possible confusion with another reference character in the application.Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-2, 4-6, 9-11, 13-15 and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Inoguchi et al.

Inoguchi et al. (US Patent Number 5,945,965) discloses a method and system for displaying autostereographic images (Figure 1) comprising means for storing stereopair images (19), means for determining at least one viewing zone (column 3, lines 11-17) in

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front of at least two transmissive electronic (1, 2) spaced one in front of another (column 9, lines 18-20), processing a stereopair image to determine a calculated image (column 7, lines 57-65) containing at least some right-eye image information (R_s) and at least some left-eye image information (L_s) for each of said at least two transmissive electronic displays (1, 2), displaying each said calculated image on each respective transmissive electronic display (1, 2), wherein each displayed calculated image acts as a mask for the other displayed calculated images (column 7, line 65 through column 8, line 3), backlighting (3) said transmissive electronic displays (1, 2) to display an autostereographic image in said at least one viewing zone (column 8, lines 57-58), estimating the light directed to each of a viewer's eyes for interim images (column 8, lines 10-25) on each of said transmissive displays (LCDs; 1, 2) through each discrete pixel of a nearest transmissive electronic display (column 8, lines 38-56), comparing the estimated light for each pixel with the equivalent light from the stereopair to determine an error (column 9, lines 14-30), adjusting said interim images to reduce said error until said error for each pixel is below a set limit to produce a set of calculated images (column 9, lines 52-60). A viewing zone (8) is determined by a calculation responsive to a sensed view position signal (column 9, lines 60-64). The calculated image is determined for a display to a plurality of viewing zones (column 10, lines 12-33); processing a plurality of stereopairs for display to a plurality of viewing zones (column 11, lines 10-21); further comprising a diffuser (35) as a mask (column 10, lines 60-62).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 3, 7-8, 12 and 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inoguchi et al. in view of Breed et al.

Inoguchi et al. (US Patent Number 5,945,965) teaches the salient features of the present invention, except processing means formed by an artificial neural network, a mask between adjacent transmissive electronic displays to suppress Moiré patterns.

Breed et al. (US Patent Number 6,442,465 B2) discloses an artificial neural network (column 8, lines 30-31), a mask between adjacent transmissive electronic displays to suppress Moiré patterns (column 23, lines 52-59).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to utilize the artificial neural network and the mask disclosed by Breed et al. in combination with Inoguchi et al.'s invention, for the purpose of determining the location of the viewer, and eliminating the Moiré patterns and other ambiguities.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Aritake et al. (US Patent Number 5,872,590) discloses an image display apparatus and method for allowing stereoscopic video image to be observed.


Eichenlaub (US Patent Number 5,457,574) teaches an autostereoscopic display with high power efficiency.

Imai (US Patent Number 5,930,037) shows a stereoscopic display apparatus, which prevents inverse stereoscopic vision.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Magda Cruz whose telephone number is (703)308-6367. The examiner can normally be reached on Monday through Thursday 8:00-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Russ Adams can be reached on (703)308-2847. The fax phone numbers for the organization where this application or proceeding is assigned are (703)872-9318 for regular communications and (703)872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-1782.


RUSSELL ADAMS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800

Magda Cruz
Patent Examiner
January 28, 2003